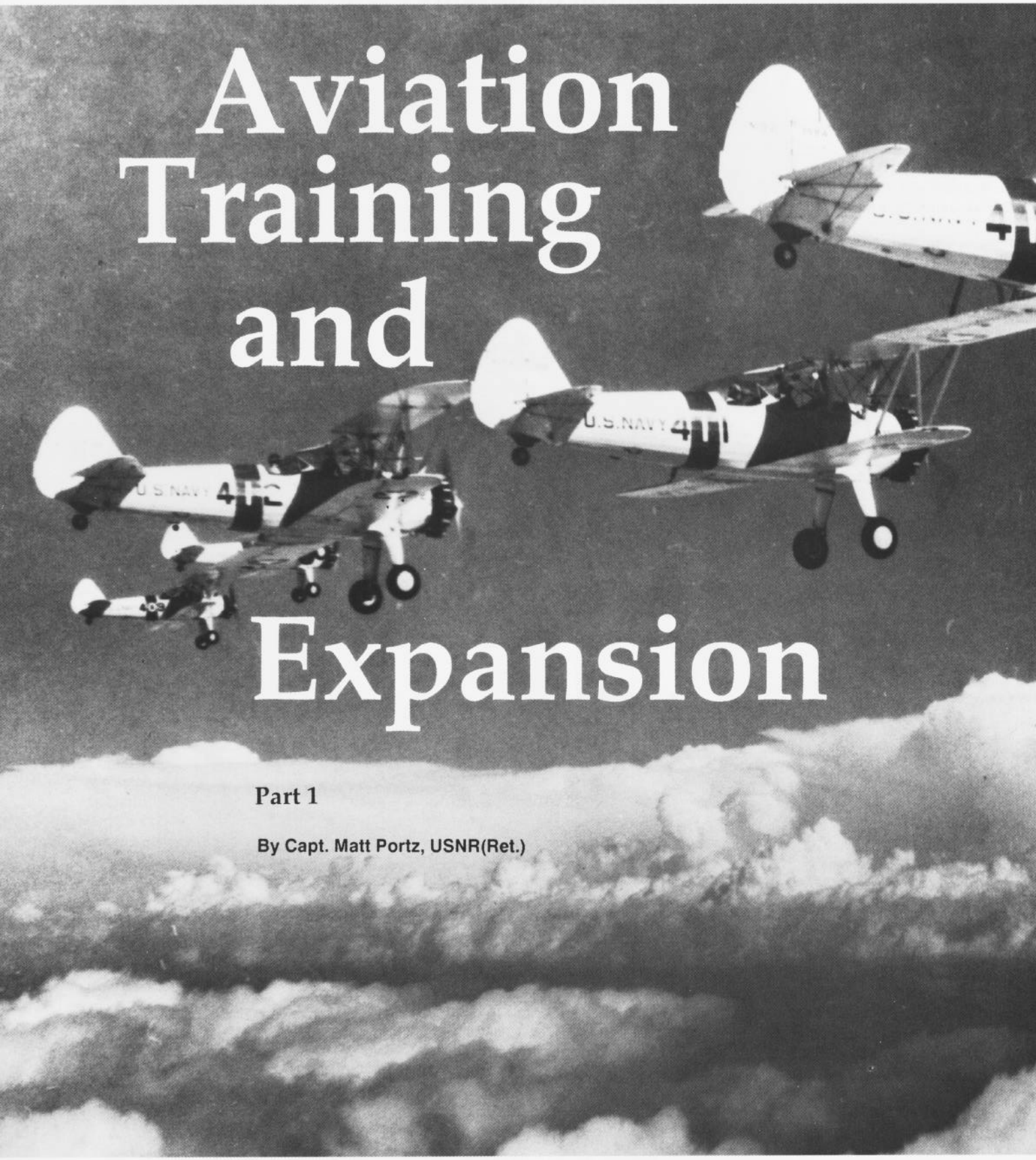
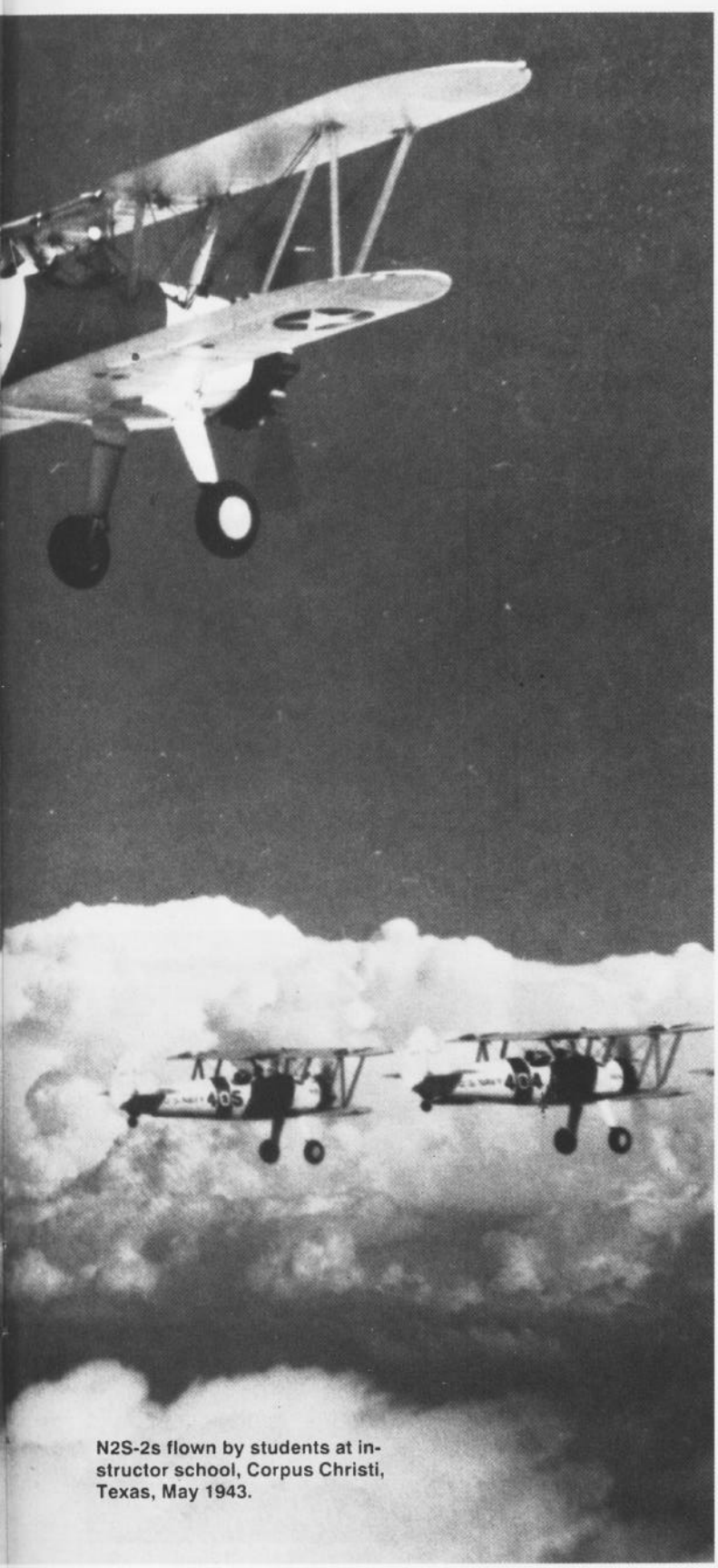


Aviation Training and Expansion

Part 1

By Capt. Matt Portz, USNR(Ret.)



N2S-2s flown by students at instructor school, Corpus Christi, Texas, May 1943.

This story by retired Captain Matt Portz reviews the Navy's pilot training within the broader context of the wartime world and national events as seen through the eyes of some who lived at the time. Capt. Portz, now vice president of Aviation Consultants, Inc., of Los Angeles, Calif., served as a junior officer aboard a destroyer before entering flight training in early 1943. Receiving his wings late that year, he was assigned as a flight instructor, first in Primary and later in instruments. After service with the fleet in the Korean War, he headed the Naval Aviation Periodicals and History Office of the Deputy Chief of Naval Operations (Air) from 1952 to 1954. He is the author of "Litany of Precision – WW II Style" (NANews, September-0ctober 1987) and "Memories of WW II Training" (Volume One, Diamond Anniversary of Naval Aviation Commemorative Collection, 1986).

Almost 65,000 Naval Aviators, American and Allied, were trained by the U.S. Navy between 1941 and 1945. The story of shaping young men into Naval Aviators for the war began in 1935, not 1941. In 1935, the Navy and Marine Corps aviation community had fewer than 1,500 aircraft of all types, with less than 1,000 pilots, 575 nonpilot officers, and about 13,000 enlisted personnel. Japanese brutality had terrorized China for four years; Hitler's thugs had bullied Europe for three. In recognition of the need for pilots, the Aviation Cadet Act was passed by the Congress to create the grade of aviation cadet in the Naval and Marine Corps reserves. The act also set up a pilot training program for college graduates between ages 18 and 28. Following one year of flight instruction and three more years on active duty, aviation cadets would return to the inactive reserve as ensigns or

second lieutenants.

President Roosevelt in 1938 called for rebuilding U.S. military forces. Naval Aviation had 2,050 aircraft, 1,700 pilots, 600 nonpilot officers, and 20,500 enlisted personnel. The Nazis occupied Austria and the Sudetenland; more of China fell to the Japanese. The Secretary of the Navy appointed the Hepburn Board to survey the Naval Aviation shore establishment in recognition of a fact of life at the time: in case of war, great expansion of Naval Aviation would be required. The board recommended enlargement of 11 existing air stations and establishment of 16 new ones. The Naval Expansion Act of 1938 authorized 3,000 new aircraft. These would replace the biplanes then operating from fleet carriers with Grumman F4F *Wildcat* fighters, Douglas SBD *Dauntless* dive-bombers, and other planes with which the Navy would fight in the early days of the oncoming war.

The Aviation Cadet Act was revised in 1938 to provide for immediate commissioning of cadets after training. To speed production of pilots, the training period was reduced from 12 to 6 months, and ground school from 33 to 18 weeks. Primary training was in landplanes, Basic in service landplanes, and instrument flying required of all. Students in advanced training would choose either patrol and utility, observation, or carrier aircraft. In September, the Nazis and Russians dismembered Poland. President Roosevelt declared a state of limited national emergency. Naval Aviation, including its Marine components, now boasted 2,100 aircraft, 1,800 pilots, 625 nonpilot officers, and 21,000 enlisted personnel.

By 1940, Naval Aviation had around 2,100 aircraft and a pilot strength of 2,900. This was the year that France surrendered to Germany, the British army was evacuated from the continent, and Germany occupied Denmark, Norway, and the Low Countries. The president called for rapid modernization and build-up of the Army and Navy, including production of 50,000 aircraft per year, and the Navy requested $4 billion for a "two-ocean navy." As the Battle of Britain raged, Roosevelt and Churchill made a deal to trade 50 old U.S. destroyers for British naval and air base sites in the Atlantic.

Anticipating Naval Aviation expansion, the Chief of Naval Operations established the Mason Board to study and recommend measures for pilot training. Board proposals included enlargement of 12 existing Naval Reserve Air Bases (NRABs) and the establishment of eight new ones. NRABs, called E-bases, gave 30 days of "elimination" training to pilot candidates. Successful ones went on to Pensacola, Fla., or Corpus Christi, Texas, as aviation cadets for an additional six months of training before commissioning and assignment to a squadron. NRABs were to become the nucleus of the wartime Primary training establishment.

Although there was no connection, it would be gratifying to me had there been. I enlisted in the Naval Reserve on July 22, 1940 – the day that Churchill rejected a peace offer that Hitler had made four days earlier in a speech to the Reichstag. In mid-August, as ordered, I reported to the battleship *Illinois*, a relic of Teddie Roosevelt's "Great White Fleet." Noah's Ark must have resembled this barnlike hulk at the edge of the North River in New York City. Within an hour, along with several hundred other college men, I was off *Illinois*, outfitted in sailor's whites, and on my way to sea for a month's introduction to the ways of the Navy aboard the battleship *Arkansas*, then anchored in the river.

While I swabbed decks and learned about battleships, the first peacetime draft law – Selective Service – was passed by Congress, and National Guard units began mobilization. Back in New York after port calls at Guantanamo, Cuba; Panama; and Norfolk, Va., my civilian clothing was returned, I was reminded of my membership in the Naval Reserve, signed up for a Midshipmen's School class convening in June 1941, and on my way back to college for another term.

"You're climbing too slow. Get that nose down. Stop making flat turns. Do you want to spin us in? Your control work is jerky. How come you don't have any confidence, hey?" These words came from a red-faced, gangly king of a 50-horsepower Piper J-3 *Cub*. The flight instructor's words were directed at me, his student.

At 500 feet over the colorful Ohio countryside that autumn of 1940, the sharp words didn't bother me a bit. I wanted to be like those aviators I had

Instructors under training at NAS New Orleans, La., learn the proper use of the gosport, 1943.

Students endure rigorous physical training on the obstacle course, Lockport, Ill., 1943.

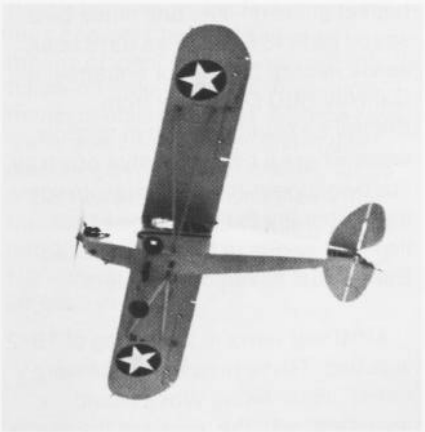
observed and envied as they played tag with clouds overhead. This had been a compelling urge since age 10 and a $5.00, five-minute flight in an OX-5-powered Travelair biplane. After the *Arkansas* cruise, my first step toward that goal was the Civil Aeronautics Authority Civilian Pilot Training Program, CAA-CPT.

The president's call to increase the country's military aircraft production fifty-fold generated a national effort to train pilots. The CAA-CPT was a beginning. Launched experimentally at 12 colleges in 1939, 700 schools, including my own, were in the program by the 1940 fall semester. Beyond his or her urge to fly, the simple requirements to get into CPT were passing a flight physical exam and producing $20.00 for insurance and $4.50 for textbooks.

The elementary CPT course included 35 to 40 hours of primary flight in the Piper *Cub* at the local airport and 72 hours of ground school at the college. At the end of the course, satisfactory completion of a check flight with a CAA inspector earned a private pilot's license. No military obligation was assumed, but most graduates eventually went into the Army or Navy. Many of the women became pilots in the wartime Women Airforce Service Pilots. Requirements of the program were changed later to exclude women and to require a military obligation.

Admiral Yamamoto's pilots blasted America fully into the war with their blitz on Pearl Harbor in December 1941, but that was a bloody year from its beginning. The president had declared an unlimited national emergency in May, American "lend-lease" war material was shipped to the British, and by fall Navy ships were escorting convoys to Iceland and to Britain. Fire was exchanged with U-boats, U.S. ships were damaged or sunk, and crewmen perished. Hitler launched a massive attack on Russia across more than 1,800 miles from the Black Sea to the Arctic. Japan occupied much of Southeast Asia and China; Germany the Balkans, Greece, and Crete, and was on the offensive in Africa. U.S. Marines moved into Greenland, Iceland, and Trinidad. By year's end, Guam and Wake Island fell to the Japanese.

In mid-1941, Naval Aviation had 3,400 aircraft, 4,600 pilots, 1,000 non-pilot officers,and 13,700 enlisted personnel. To speed production of pilots, Navy carrier flight students now specialized in fighter, scout-bomber or torpedo aircraft rather than all three as before. Quotas for entering students were raised from 800 to 2,500 per month with a goal of producing 20,000 pilots annually by 1943.



Piper Cubs, like this NE-1, served for elimination training.

All naval reservists were called to active duty on June 12, 1941, coincidentally the day that I and 499 others were sworn in as midshipmen, V-7, aboard "Noah's Ark," *Prairie State*, as *Illinois* had been renamed. An intensive 24-hour-a-day boot camp and concentrated academic combination saw most of us wearing ensign's stripes 97 days later. My orders were to *Elliot*, an old destroyer of the deal-for-bases type that had been converted to a high-speed mine sweeper. I was directed to report to Naval Air Station, San Pedro, Calif., to await transportation to wherever *Elliot* might be.

Scattered fracto cumulus dotted the

southern California sky from Dana Point to Malibu as I merrily flew a rented Aeronca over the harbors of Long Beach and Los Angeles. During the two-week wait at San Pedro, my only Navy duty was to check each day on the availability of transportation. This gave ample opportunity for flying rented planes up and down the coast, but the interlude ended when I became junior engineering officer in *Elliot's* black gang at Pearl Harbor, Territory of Hawaii.

In company with *Indianapolis*, *Hopkins*, *Southard*, *Long*, and *Dorsey*, *Elliot* cruised on one of her two engines off Johnston Island on December 7, 1941, when the urgent dispatch, "Air raid Pearl Harbor. This is no drill," was received in the radio shack. I was in dungarees inside the port condenser trying to find a saltwater leak in the ship's freshwater system. Leak or not, the ship went to general quarters, put both engines on line, and made best speed back to Pearl. Two days later, as we neared the harbor entrance, a Douglas SBD *Dauntless* from *Enterprise* could be seen in shallow water where it had been shot down by our own trigger-happy people. Inside the harbor lay the wreckage of battleship row. Some fires still smoked. Bunker fuel covered the waters.

Most war news in the spring of 1942 was bad. Tokyo propagandists were heard "interviewing Wake Island prisoners" with the voices of the same actors playing the roles of "different prisoners" attesting "humane" treatment. In addition to Wake and Guam, Singapore fell, *Prince of Wales* and *Repulse* had been sunk by Japanese aircraft off Malaya, the British and Dutch lost other major ships in the Battle of the Java Sea, Bataan surrendered, and a few American and Filipino survivors clung to Corregidor. In April, one bright light illuminated the gloom. Jimmy Doolittle's 16 North American B-25 *Mitchell* bombers launched from *Hornet* bombed Japan. Damage was minimal, but depressed American spirits soared, and Japan pulled back offensive forces for home defense.

Lexington was exchanged for the Japanese carrier *Shoho* in the Battle of the Coral Sea in May. The heavily damaged *Yorktown* was repaired quickly at Pearl and, along with *Enterprise* and *Hornet*, steamed off toward Midway to change the course of the war in the Pacific. The Japanese carriers *Kaga*, *Soryu*, *Akagi*, and *Hiryu* and their veteran air groups were exchanged for *Yorktown* in early June. In August, we invaded Guadalcanal. *Saratoga's* aircraft sank the Japanese carrier *Ryujo*, and *Enterprise* and *Saratoga* were damaged in separate actions. The next month, *Wasp* was sunk by a submarine and *Hornet* was lost in the Battle of Santa Cruz.

Navy flight training was expanding rapidly under Captain Arthur Radford and Commander Austin "Artie" Doyle in Washington, both of whom later became distinguished admirals. Trainees were pushed into the air as fast as new facilities were commissioned. Numbers were limited only by aircraft and the fields from which to fly. The E-bases were discontinued in February when they became fully occcupied with Primary students. The draft had taken so many college men by April that qualifications for enlistment as naval aviation cadets, V-5, were reduced from two years of college to a high school diploma. This plugged up the training system with enlistees, as more bases, training planes, and flight instructors were produced to break the jam. At the time of the Battle of Midway, the Navy and Marine Corps aviation populace comprised more than 7,000 aircraft, 11,000 pilots, 7,000 non-pilot officers, and 40,000 enlisted personnel.

To keep the pipeline flowing, preflight training was initiated at the Universities of North Carolina, Iowa, Georgia, and at St. Mary's College and the Del Monte Hotel in California. Navy students at these schools were exposed to about three months of intensive physical training and Navy indoctrination. From here, cadets moved to three months of Primary and four more of Intermediate. Most had been exposed to flying light planes in the CAA-CPT before being called to active duty at the preflight schools. Navy flight training was this way in June 1942, but many changes were made in the length and phases of the training program as the war progressed. Supervision had moved from Washington to four newly established functional commands: Primary, Intermediate, Operational, and Technical. The first three trained aviators, the lat-

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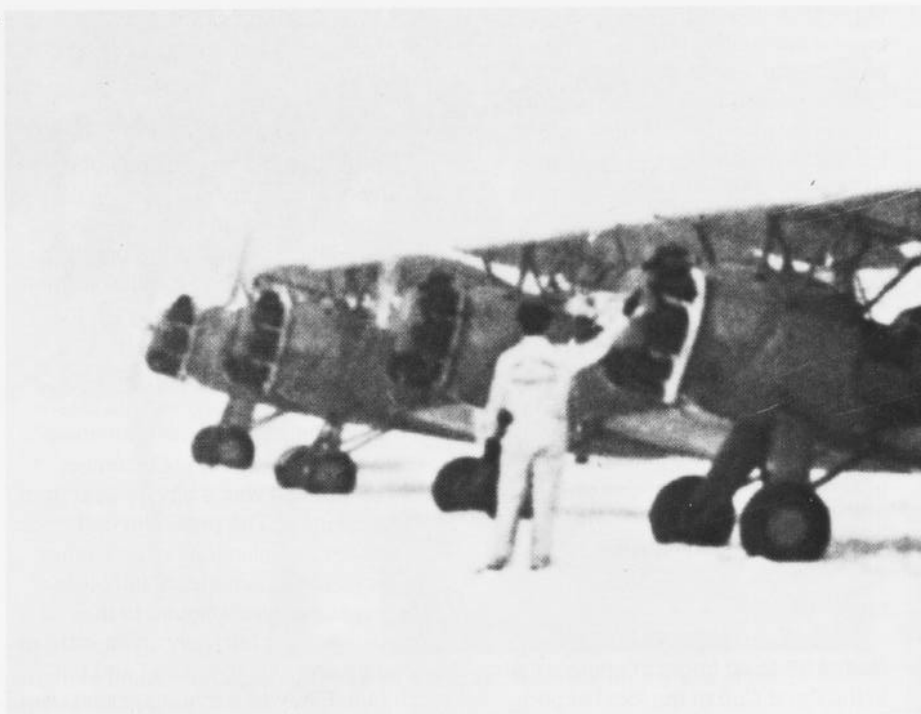

Waco UPF-7s on the flight line at Navy-CAA Flight Instructor School, Lockport, Ill., February 1943.

ter the technicians to keep them flying.

As a diversion during the Midway campaign, Japanese carrier aircraft attacked Dutch Harbor in the Aleutians. *Elliot* with me in her crew went there, but my heart remained in the sky. I asked for a transfer into Naval Aviation. The Navy's response was that I could give up my commission to become a cadet or wait until completing a year aboard *Elliot* and then apply for training in grade as a blimp pilot. Soon thereafter, an ALNAV (message) arrived which announced opportunity for training in heavier-than-air craft after a year at sea. Things were looking brighter. That ALNAV was followed by another which announced that "to meet the urgent requirements for pilots" junior reserve officers holding a pilot's certificate could request Navy flight training but would serve as instructors before assignment to a squadron. I sent requests to be considered under both ALNAVs. Meanwhile, we cruised in the Aleutian fog, storms, and cold; were missed by a torpedo from a submarine, the RO-61, later sunk by *Reid*; and were saved by *Nashville's* guns off Kiska when Japanese shore battery fire got uncomfortably close.

Coveted orders for entry into Naval Aviation came in January 1943. The troop transport *Wharton* delivered me from Kodiak, Alaska, to Seattle, Wash., in the midst of the city's heaviest snowstorm in 25 years. After leave in California, my train arrived at a dirty station in Chicago on a day colder than the one left in Kodiak. The cross-country train trip had been memorably punctuated by ladies in Grand Island, Neb., who braved a blizzard to serve coffee, cake, and pie to men in uniform on the train. After checking in with the Chicago Naval Aviation Cadet Selection Board, responsible for processing flight candidates, the local bus took me to the Lewis School of Aeronautics at Lockport to begin training, which resulted in Navy wings on my uniform some nine months and 350 flight hours later. New mine sweepers, destroyer escorts, and landing craft moving down the nearby Chicago Sanitary Canal from Great Lakes construction yards were daily reminders of the war. Otherwise, the war was remote. ■

See Part 2 in *NANews*, September-October 1990.

50 Years Ago – WW II

July 19: Authorization for a further expansion of the Navy provided an increase of 200,000 tons in the aircraft carrier limits set the previous month, and a new aircraft ceiling of 15,000 useful planes. The act also allowed further increases in aircraft strength on Presidential approval.

August 29: The exchange with the British Tizard Mission of scientific and technical information concerning radar began at a conference attended by Sir Henry Tizard, two of his associates, and representatives of the U.S. Army and Navy, including Lt. J. A. Moreno of the Bureau of Aeronautics. The initial conference dealt primarily with the British techniques for detecting German bombers but touched upon means of identifying friendly aircraft. In follow-on meetings, British developments of shipboard and airborne radar were also discussed. A British disclosure growing out of this exchange of particular importance for airborne radar application was the cavity magnetron, a tube capable of generating high-power radio waves of a few centimeters in length.